QP Code: 621006 **Reg. No…….**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations
July 2023
Medicinal Chemistry III

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Classify antibiotics based on their chemical nature with examples from each class.
2. Classify sulfonamides and explain the SAR.

Short Notes **(7x5=35)**

3. Explain the concept of prodrug design.
4. Discuss the SAR of Penicillins.
5. Classify antimalarial drugs with examples.
6. Outline the synthesis and uses of miconazole and acyclovir.
7. Write a note on anthelminthics with examples.
8. Outline the synthesis and uses of Isoniazid and pamaquine.
9. Discuss the applications of QSAR.

Answer Briefly **(10x2=20)**

10. Write the structure and uses of Pyrazinamide.
11. Discuss the chemistry and uses of monobactams.
12. Give the structure and uses of Amantidine hydrochloride.
13. Outline the synthesis of p-amino salicylic acid.
14. Write the structure of any two synthetic antifungal drugs.
15. Discuss the significance of docking techniques.
16. Outline the synthesis of ciprofloxacin.
17. Write the structure and uses of albendazole.
18. Discuss the mechanism of action of cotrimoxazole.
19. Enlist the first-line antitubercular drugs.

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QP Code: 622006 **Reg. No…….**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations July 2023
Pharmacology III

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Classify Antiemetics and explain the pharmacology of prokinetics.
2. Discuss the pharmacology of drugs used in first line therapy for tuberculosis management.

Short Notes **(7x5=35)**

3. Explain the pharmacology of Proton pump inhibitors.
4. Describe the role of specific T-cell inhibitors as Immunosuppressants.
5. Explain the role of topoisomerase inhibitors in cancer management with suitable examples.
6. Explain gene therapy and its applications.
7. Explain the mechanism of action and Adverse Drug Reaction of methotrexate.
8. Classify penicillins and describe the mechanism of action and adverse drug reaction of Penicillin G.
9. Classify antileprotic agents. Write the mechanism of action and adverse drug reaction of dapsone.

Answer Briefly **(10x2=20)**

10. Classify Immunosuppressants with suitable examples.
11. Name the drugs used in management of chronic obstructive pulmonary disease.
12. Define Carminatives and Digestants with examples.
13. Classify antifungal drugs.
14. Write the adverse drug reaction of chloramphenicol.
15. List the antibiotics that have cell wall synthesis inhibiting mechanism.
16. List the drugs used for the management of wet cough and add a note on Bromhexine.
17. Write the mechanism of action of mebendazole.
18. Name the drugs used in sexually transmitted diseases.
19. Outline the disadvantages of gene therapy.

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QP Code: 623006 **Reg. No……..**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations July 2023
Herbal Drug Technology
(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Explain the different types of pest and explain briefly different methods to control pest.
2. Describe the WHO and ICH guidelines for stability testing of herbal drugs.

Short Notes **(7x5=35)**

3. Explain herbal excipients.
4. Explain interactions and side effects of drug ephedra.
5. Explain the process involved in processing of herbal raw material.
6. Explain the principle involved in Homeopathic system of medicine.
7. Explain GMP with respect to infrastructure, health and hygiene.
8. Explain the method of preparation of herbal tablet.
9. Discuss briefly about patenting and regulatory issues of herbal drugs.

Answer Briefly **(10x2=20)**

10. Explain breeders right.
11. Mention the health benefits of honey.
12. Give any two examples of neutraceuticals used in CVS disease.
13. Expand ASU, DTAB and DCC.
14. Define conventional drugs with suitable examples.
15. Define bio insecticides.
16. Define IPR.
17. Explain organic farming.
18. Define Bhasma.
19. Mention side effects of hypericum.

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QP Code: 624006 **Reg. No…….**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations July 2023
Biopharmaceutics and Pharmacokinetics

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Define drug absorption. Explain various mechanism of drug absorption.
2. Define renal excretion of drugs. Explain the factors affecting renal excretion of drugs.

Short Notes **(7x5=35)**

3. Explain on patient related factors affecting drug absorption.
4. Explain the effect of urine pH and urine flow rate on renal excretion of drugs and how can they be used to treat drug intoxication.
5. Describe the physiological barriers of drug distribution.
6. Explain the significance of a loading dose in a multiple dosage regimen. Derive expressions for loading dose and maintenance dose.
7. What do you understand by 'Two compartment open model'. Draw and explain the plasma drug level curve obtained after the administration of an I.V bolus of a drug following two compartment model.
8. Explain the methods for the enhancement of bioavailability.
9. Write briefly on physiologic models. What are the advantages over compartment models.

Answer Briefly **(10x2=20)**

10. Explain extraction ratio.
11. Define bioavailability and bioequivalence.
12. Write any one method for determination of AUC.
13. Explain apparent volume of drug distribution.
14. Explain the various levels of IVIVC.
15. Cytochrome p-450 oxidation-reduction cycle in phase – 1 biotransformation reaction.
16. Factors causing non-linearity in pharmacokinetics.
17. Explain plasma protein binding.
18. Mention the advantages of urinary excretion data in the analysis of pharmacokinetic system.
19. Explain the key features of any one official apparatus for dissolution studies.

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QP Code: 625006 **Reg. No…….**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations July 2023
Pharmaceutical Biotechnology

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Define Hybridoma technology. Explain the production and applications of monoclonal antibodies.
2. Write about fermentative production and purification of penicillin.

Short Notes **(7x5=35)**

3. Explain the different types of Immunoglobulin.
4. Production of interferon by rDNA technology.
5. Define Biosensors. Discuss different types of biosensors in pharmaceutical industries.
6. Classify toxin. Discuss the preparation of Diphtheria toxoid
7. Write in detail about gene transfer mechanism by conjugation.
8. Discuss briefly the different methods of enzyme immobilizations.
9. Discuss the types of mutations.

Answer Briefly **(10x2=20)**

10. Define Immunostimulants.
11. Briefly explain type I hypersensitivity reactions.
12. Any two applications of biotechnology in pharmaceutical sciences.
13. Steps involved in PCR (Polymerase Chain Reaction).
14. Spargers and types.
15. Define transduction.
16. Explain innate immunity
17. Types of ELISA.
18. Name the organism for the production of Small pox vaccine and BCG Vaccine.
19. Examples of anticoagulants used for collection of whole human blood.

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QP Code: 626006 **Reg. No…….**

Sixth Semester B. Pharm Degree Regular/Supplementary Examinations July 2023
Pharmaceutical Quality Assurance

(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw diagrams wherever necessary***

Essays **(2x10=20)**

1. Define quality control and write the detailed procedure for NABL accreditation.
2. Explain the construction, sanitation, environmental control of premises.

Short Notes **(7x5=35)**

3. Define calibration and how will you calibrate the pH meter.
4. Explain batch formula record.
5. Discuss the steps involved in the registration of ISO 14000.
6. Explain the utilities and maintenance of sterile area.
7. Give in detail about benefits of standard operating procedure.
8. How will you maintain stores for raw materials.
9. Types of recalls.

Answer Briefly **(10x2=20)**

10. Explain any two important tools of quality by design.
11. Explain photo stability testing guideline.
12. Explain the training given to personnel in an organization.
13. Give the general principle of qualification.
14. Brief any two-objectives of documents.
15. Explain the different types of validation.
16. Define operational qualification.
17. Explain the different type of secondary packaging materials.
18. Explain the difference between confirmed and non-confirmed complaints.
19. How to prevent contamination and deterioration in warehouse.

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